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NATURAL GAS
FOR THE PEOPLE
OF
NORTHERN ALBERTA
AND
BRITISH COLUMBIA



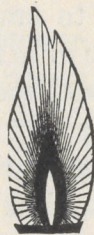
SEP 27 1949

TO BE PROVIDED BY THE PIPELINE SYSTEM
OF
WESTCOAST TRANSMISSION COMPANY
LIMITED



Prairie Provinces Collection

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PREFACE

This booklet has been prepared for the information of all Canadians, and particularly those living in British Columbia and Alberta. Its purpose is to—

- (1) Demonstrate the advantages of the use of Natural Gas both in industrial and domestic life,
- (2) Draw attention to the expansion of population and industry in those areas through which a pipeline will pass,
- (3) Further point out the fact that in any plan to supply gas to the Pacific Coast, the maximum number of Canadian people and Canadian territory must be first supplied before any gas should be exported from Canada.

We wish particularly to emphasize the incontestable fact that only in a country where **Free Enterprise** is encouraged and dwells under government dedicated to the principles of our democratic way of life, can we obtain **industrial expansion and development of our natural resources** which will not only maintain but raise our standard of living, **resulting in the greatest benefit to all.**

SUMMARY

The benefits to be derived from construction of the pipeline system of Westcoast Transmission Company Limited may be summarized as follows:

1. It will bring a new major industry to Western Canada.
2. It will mean the expenditure in Canada of over \$100,000,000 in United States funds in the construction of the line.
3. It will bring a steady flow of United States Dollars into Canada every year.
4. It will provide cheap fuel to both industry and the householder.
5. It will cause many millions of dollars to be paid into Provincial Treasuries by way of royalties on gas, taxes, etc.
6. It will be a big factor in opening up the interior of both Provinces to new industry through the supply of cheap efficient fuel.
7. It will require year around maintenance, thus assisting in highway improvement and communication generally throughout its whole route.
8. It will encourage and stimulate the development of both oil and gas fields in British Columbia and Alberta.
9. It will mean new employment to thousands in its construction and permanent employment in its maintenance and operation.
10. It will materially assist in the Rural Electrification programmes of both Provinces through the use of cheap natural gas in gas-electric plants.
11. It will be invaluable as a defense measure, transporting cheap fuel to strategic centers on the Pacific Coast.

WESTCOAST TRANSMISSION COMPANY LIMITED

Westcoast Transmission Company Limited has been incorporated by Special Act of Parliament of the Dominion of Canada to transport natural gas from British Columbia and Alberta fields, through British Columbia to Vancouver, and thence south to United States Cities. Surveys of the entire route have already been made by Ford, Bacon & Davis, pipe line construction engineers of world wide experience.

The pipeline will gather natural gas in Northern Alberta and the Peace River block in British Columbia. These gathering lines will pass through the electoral districts of Beaver River, Redwater, Pembina, Athabaska, Grouard, Grand Prairie, Peace River and Spirit River in Alberta, connecting with the main line near Dawson Creek, British Columbia.

The main pipe line, 30" in diameter, will then follow the Hart Highway to Prince George; it will pass through the electoral districts of Peace River, Fort George, Caribou, Kamloops, Lillooet, Yale, Dewdney, Chilliwack, and all those in the lower Fraser Valley and Greater Vancouver.

The total length of the line from Vancouver, B.C. to Athabaska, Alberta is 940 miles. It is proposed to continue the pipeline south from Vancouver to Portland, a further 350 miles, thus serving larger markets at lowest cost to all consumers.

Branch lines to serve the Okanagan Valley and terminating at Trail are also included in the eventual plan to serve the greatest number of people and territory in Canada.

The overall cost of the pipeline, including rights of way, ditching, pipe, welding, wrapping and covering, and pumping stations is estimated at from \$100,000,000 to \$175,000,000 depending on eventual length and size of the line.

The formation of Westcoast Transmission Company Limited is the culmination of fifteen years of intensive study and investigation. Pacific Petroleums Ltd. and its subsidiary Peace River Natural Gas Co. Ltd, both Canadian Companies, have carried the development of the project to this point. Sunray Oil Corporation of Tulsa, Oklahoma and Los Angeles, California and several other large independent producers in the United States, whose capital and reserves amount to many hundreds of millions of dollars, have now become associated with Westcoast Transmission Company in the construction of the pipe line.

Eastman Dillon & Co. of New York, members of the New York Stock Exchange and one of the large investment houses of America, are in charge of the financing.

PRELIMINARY INVESTIGATION AND WORK DONE TO DATE

In conjunction with the project of **Westcoast Transmission Company Limited** to transport natural gas from Northern Alberta and North Eastern British Columbia to Vancouver and United States Cities south of the border, the following is a brief summary of the plan of operations, the extent of work done to date, and the present activities of the Company and its associates within the Provinces of British Columbia and Alberta.

Preliminary work on the project of transporting natural gas to Vancouver and the Northwest United States cities was commenced by Frank M. McMahon in 1935. At that time a thorough investigation into the known and potential gas reserves of the Provinces was made. The developed and actual "on top of the ground" reserves as reported on by independent and Government engineers was accepted. The potential reserves were investigated and for this purpose geologists were retained to explore the undeveloped but patently obvious further sources of a supply of natural gas.

The market for gas in the Vancouver Area and in the neighboring cities in Western Washington and Northern Oregon was gone into at length with most of the information gathered from the Companies which were then engaged in supplying manufactured gas to these areas. At a later date an exhaustive report into these markets for natural gas in the Pacific Northwest cities, including Vancouver, prepared by Ebasco Services Incorporated of New York, was made available by the B. C. Electric Railway Company of Vancouver. This is the most recent and authoritative report on these markets.

Possible pipe line routes were checked to determine the shortest and most economical methods of transporting the gas from sources of supply to ultimate markets.

A large amount of pertinent information was compiled pointing to three main factors:

- A. The market for natural gas in sufficient quantities to justify the large expenditure to construct the line was available.
- B. The route and length of the line was practical in all respects.
- C. Further developments of the gas fields of Alberta and of British Columbia will assure an abundant supply of natural gas for these markets.

The work which had been under way on this project was necessarily suspended during the war, but was immediately resumed on its cessation.

In 1945 Mr. S. E. Slipper, widely known gas geologist, was retained to continue the search for such additional reserves and direct a development program.

Since that date we have acquired millions of acres under Reservations from the Alberta and British Columbia Governments. Several hundreds of thousands of dollars have already been spent, and a minimum of \$3,000,000 has been provided for active development of these properties,

over the next twenty-four months. This amount is considered to be a minimum as the program and expenditures will increase as areas are proved.

In the work done to date, several gas wells have been drilled and large reserves, the full extent of which will be determined by further drilling, have been discovered. Along the British Columbia-Alberta boundary in the Peace River Area a total of eight wells have been drilled. Two large gas wells were completed on the Alberta side with tested open flows of thirty-three million and twenty-four million cubic feet per day. Three productive wells were completed in British Columbia indicating an inter-Provincial gas field of some magnitude.

At present several drilling rigs are employed to further this development. In addition to its own program the group is assisting other operators in the same areas through the contribution of money and technical advice.

"CANADA FIRST" POLICY

It is our firm conviction that in the transmission and export of gas from this country a **Canada First** policy should be adopted. Canadian consumers should be the first to be served. By building a pipeline through to Vancouver via a Canadian route that object will be accomplished and the greatest number of Canadians will receive priority.

There are large potential consumer demands for gas in Western Canada, East through to Winnipeg and West to Vancouver. We believe that these Canadian requirements should form an integral and prior part of the eventual markets. As a result, the plans for the supply of gas to the Pacific Northwest and particularly the Vancouver area were and are designed for the construction of an all-Canadian pipeline.

An all-Canadian line means that many additional communities in Alberta and British Columbia would be served

with natural gas; it means that the major section of the transmission system would be under Canadian control; it means that this country would reap the benefits of the expenditure of large amounts of United States capital in the construction of the major portion of the pipeline within our own borders; it means that all questions of pipeline rates, safety regulations and in fact all other controls would be under the supervision of Canadian authorities.

THE ALL CANADIAN PIPE LINE ROUTE

The gathering line system of Westcoast Transmission Company Limited will commence in the vicinity of the Town of Athabaska north of Edmonton. Taking gas from fields in this area and all along the route it will follow the highway westward through or close to the towns of Athabaska, Smith, Slave Lake, Faust, High Prairie, Grande Prairie, Wembley, Beaver Lodge, Hythe in Alberta, and Dawson Creek, British Columbia. Gas will be gathered all through these areas, thus making gas available to all communities along the route.

From near Dawson Creek, British Columbia, the main line will follow the Hart Highway south to Prince George. From Prince George to Vancouver it will pass near or through Quesnel, Williams Lake, Clinton, Ashcroft, Kamloops, Princeton, Spence's Bridge, Lytton, Hope, Sumas, Chilliwack, Matsqui, Mission, Abbotsford, Maple Ridge, Langley, Fraser Mills, Pitt Meadows, Port Coquitlam, New Westminster and the greater Vancouver area.

Cheap natural gas in abundant quantity will be made available to all of these communities. Because the pipe line will require all year around maintenance, roads will be improved and kept open twelve months of the year. This will facilitate transportation and communication generally along the entire route of the pipe line from Vancouver to Athabaska.

Further plans of the Company include a branch line to

Trail and eventually south to serve the Spokane market and the atomic plant at Hanford, Washington.

The pipeline will continue south from a point near Vancouver to serve Pacific Coast cities of the United States such as Bellingham, Everett, Seattle, Tacoma, Olympia and Portland, and all other intervening points. By carrying gas to this large market the pipe line system will be able to supply gas at the lowest possible cost, particularly for all Canadian users.

The entire route of the pipe line from Athabaska to Vancouver has been inspected by engineers of the firm of Ford, Bacon & Davis, of New York, pipeline engineers and consultants of world wide experience. Their report shows the all-Canadian route selected to be entirely practical in all respects, in terrain to be covered, length of line from sources of gas to markets and from the standpoint of year-around maintenance.

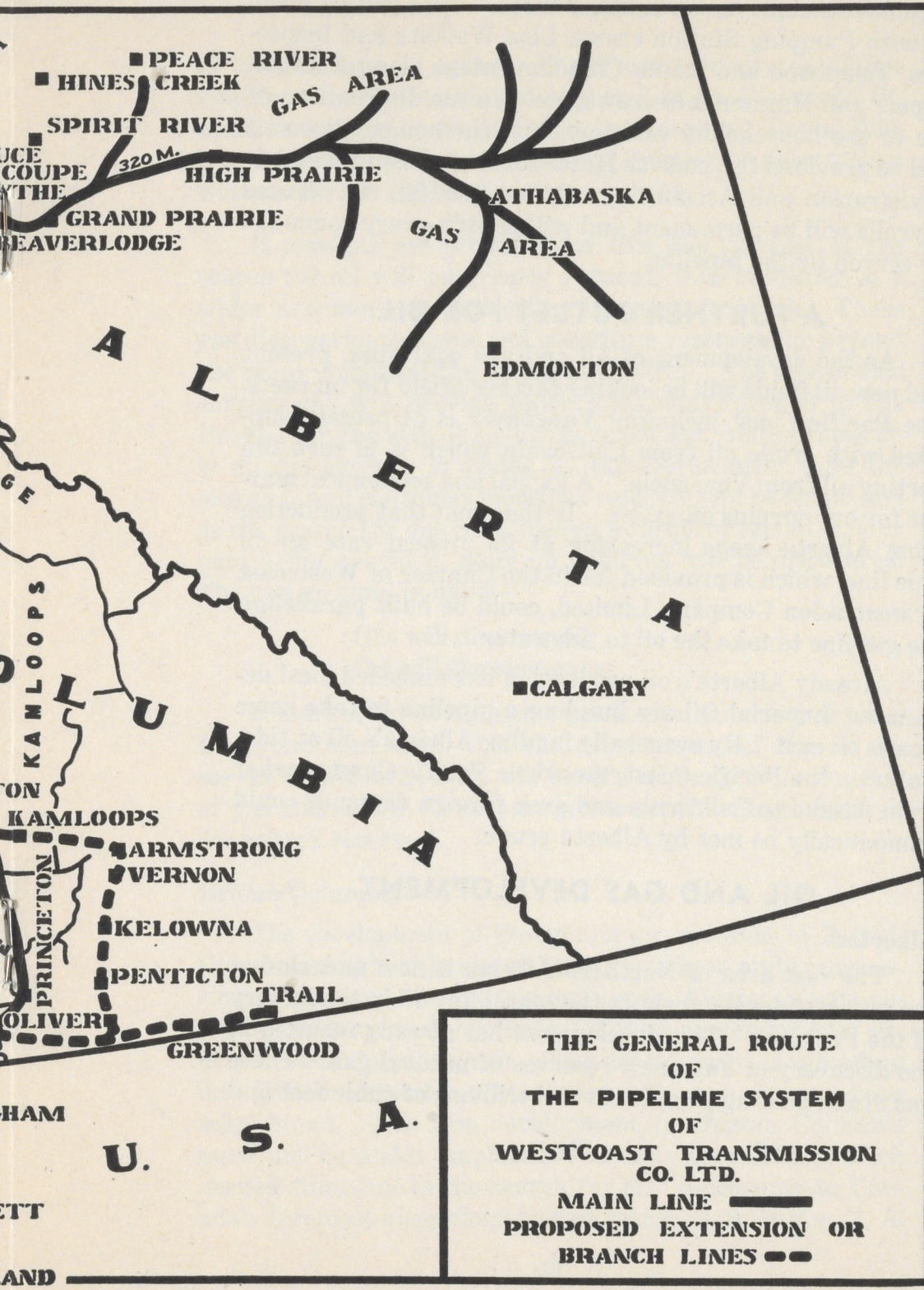
FOREIGN EXCHANGE

The construction of the pipe line will mean the expenditure of many millions of United States Dollars in Canada for labor, materials, supplies, equipment and transportation. Added to that we must take into consideration the value of gas exported to such centers as Seattle, Tacoma, Portland and other United States cities along the route. United States Dollars will be paid for this gas when it crosses the international border with the value computed at that point. This will mean a steady stream of American Dollars coming into Canada every year and will do much to improve the money exchange position between the two countries.

THE PIPELINE IS A NEW INDUSTRY

In the construction of the pipeline approximately \$100,000,000 will be spent in Canada. This project, ranking as one of the major construction jobs in Canada, will give em-





ployment to thousands of Canadians during its construction period, and after the line has been completed will give permanent employment to many more. This will be made up with Pumping Station crews, Line Walkers and Inspectors, Telephone and Radio Communication along the line, Repair and Maintenance crews, etc. In the distribution of gas to the householder and industry, further employment will be provided for, such as Meter Readers, Inspectors, Administration and Accounting, Office Staffs, etc. These payrolls will be permanent and will benefit every community served by the pipeline.

A FURTHER OUTLET FOR OIL

As the development of oil and gas continues, present and new oil fields will be looking farther afield for markets. The Pacific Coast including Vancouver is at present supplied with crude oil from California which is in turn importing oil from Venezuela. A logical and economical market for our surplus oil exists. In the event that production from Alberta keeps increasing at its present rate an oil pipe line, which is provided for in the Charter of Westcoast Transmission Company Limited, could be built paralleling the gas line to take the oil to tidewater.

Already Alberta's oil production has exceeded local demands. Imperial Oil are building a pipeline to take some excess oil east. By eventually landing Alberta's oil at tidewater on the Pacific Coast, the whole Pacific Coast market from Alaska to California and even foreign demands could economically be met by Alberta crude.

OIL AND GAS DEVELOPMENT

Alberta:

The vast area of Northern Alberta is now undergoing the greatest development in the search for oil in the history of the Province. This development has already resulted in the discovery of huge new reserves of natural gas. These gas discoveries aggregate several trillions of cubic feet and

at present have no outlet. The discoveries stretch all the way from Leduc, north and east to Lac La Biche and St. Paul, westward through Athabaska, Barrhead, Boyle, Ells-cott, Lesser Slave Lake, to mention only a few points, then west across the British Columbia border.

If markets are provided for this gas the cost of the search for oil will be greatly reduced, thus resulting in a wider and more economical exploration for both. These gas discoveries are new and constitute reserves far beyond the requirements of the people of Alberta. The sale of this surplus gas will provide much additional revenue to the Province in the way of royalties, taxes, etc., since practically all the acreage is owned by the Government. As the search for oil continues more gas reserves will be found and as the search for gas continues as a result of an outlet (for gas) being provided, more oil reserves will be discovered. The two go hand in hand—

Gas will discover oil.

Oil will discover gas.

A market for this surplus gas is vitally needed at once. Everyone connected with the development of the oil reserves in this large area will benefit directly from the sale of gas and all will be encouraged to continue in the search for new oil reserves.

British Columbia :

The development of the oil and gas reserves of British Columbia will be stimulated by the purchase and transmission of the gas. As pointed out above, Alberta is now enjoying the largest development of these resources ever experienced in that Province. This development is spreading into British Columbia where substantial gas reserves have been found. This gas development in British Columbia must not be under emphasized as it is providing a much needed stimulant to the search for oil. According to Canada's foremost oil geologists such as Dr. G. S. Hume, T. A.

Link and many others, the great sedimentary basin in which the oil fields of Texas, Oklahoma and Alberta are found, extends through and northwest of the Peace River country of both Alberta and British Columbia. A vigorous program of intelligent development of this vast area will no doubt result in the discovery of new oil and gas reserves.

A DEVELOPMENT OF INTERNATIONAL IMPORTANCE

The following is very briefly the scope of the development and the operators involved in the search for oil and gas in Northern Alberta and British Columbia:

Imperial Oil Limited hold over 3,000,000 acres in the north country alone on which the big discoveries at Leduc, Redwater and Golden Spike are located. Numerous wells are now being drilled and exhaustive geophysical work carried on throughout.

Stanolind Oil & Gas Company is carrying on an active drilling and exploration program on over 1,200,000 acres. Important gas discoveries have been made at Lac La Biche and Ellscoot, and oil and gas at Barrhead.

Barnsdall, Honolulu and Seaboard Oil Companies have over 2,000,000 acres under reservation, all of which is under development.

Royalite Oil Company have recently acquired 600,000 acres along the Peace River, have drilled several producers at Redwater and with **Central Leduc Oils** drilled a big gas discovery at Lac La Biche on a 40,000 acre block. **Hudson's Bay Oil & Gas** and **Union Oil Company** are exploring on 500,000 acres in this area.

British American Oil Co. are working on 200,000 acres along the Peace River and with **Hudson's Bay Oil & Gas** have drilled several good producers at Redwater.

Gulf Oil Co. holding over 2,000,000 acres have made important discoveries of oil and gas and are at this time drilling in several localities.

Bear Oil Co., backed by **Pacific Petroleum Ltd.**, **Sunray Oil Corporation**, **Pacific Western Oil Co.**, **Tide Water Associated Oil Co.**, **Princess Petroleum Ltd.**, etc., are carrying on extensive exploratory work over a 5,000,000 acre area. Gas discoveries have been made at Lesser Slave Lake and several rigs are now drilling.

Benedum & Trees with 500,000 acres, **California Standard** with 100,000 in the north and several times that much in Central Alberta are actively at work.

A. G. Bailey & Associates and **Long Island Petroleum** have made a large gas discovery at Wabamun Lake, as have **Home Oil** and **Anglo Canadian** at Elk Point and Redwater, and **Continental Oil Co. of Canada** at Boyle.

Many other operations are being carried on by **Shell Oil**, **Sun Oil Co.**, **Pan Western Oil**, **British Dominion**, **Globe Oil**, **West Leduc**, **Homestead**, **Okalta**, **Calvan**, **Decalta**, **Davies Petroleum** and numerous individuals and syndicates.

In British Columbia several hundreds of thousands of acres are under development by the big **Phillips Petroleum Co.** **Sunray Oil Co.**, **Pacific Petroleum Ltd.** and **Peace River Natural Gas Co. Ltd.** are working on 750,000 acres on which important gas discoveries have been made.

Every one of the operators, the thousands of shareholders they represent, the people living in the area and the Governments of Alberta, British Columbia and Canada will benefit through an outlet for the gas discovered and an additional outlet for oil.

NATURAL GAS IN INDUSTRY

Natural gas, the most efficient fuel, produced from British Columbia and Alberta Gas Fields and delivered to consumers in Northern Alberta and British Columbia would have a tremendous effect on the whole economy of both Provinces, as an abundant supply of power and economic fuel is the basis of practically all industry. Natural gas would bring new industry, such as Smelters which are sorely needed to refine our nickel, iron and copper ores; Canneries for fish, vegetables and fruit; Dehydrating Plants; Pulp and Paper Mills; Gas electric power for communities en route; Iron Foundries—all of these would be created or their efficiencies increased by the use of natural gas. Many more of our abundant raw materials could be converted into manufactured products. Tobacco could be cured, clay products would be manufactured and other industries, whose basic requirements are power and abundant economic fuel, would come here to manufacture and supply our Canadian and Oriental markets with their products.

The great distances between many communities, both in British Columbia and Alberta, have made adequate rural electrification prohibitive due to excessive costs. The availability of cheap natural gas to be used in gas-electric plants will be a big factor in expanding the rural electrification programs of both Provinces where water power is not available.

The production and delivery of natural gas is a new industry in itself, creating employment in its various ramifications for several thousands of people for many years to come. Alberta and British Columbia's population is increasing at a rapid rate. The price of manufactured gas is abnormally high, coal and oil are scarce and high priced and the potential development of this great region is being held back by the excessive costs of fuel. **Natural Gas is needed now for our fast growing population.**

NATURAL GAS IN THE HOME

In a booklet of this size it is impossible to set out all of the advantages of the use of natural gas in the home. We will, therefore, dwell only on the most obvious.

1. Cleanliness:

Natural gas requires absolutely no handling. It eliminates wood chopping, coal scuttles, smoke and disposal of ashes.

2. Storage:

You have no storage problem with natural gas. The gas is piped into your home from a main line just the same as your water supply. You have no oil tank, no wood shed, no coal bin. You simply turn on the burner and it is always available.

3. Economy:

You pay for your gas **after** you have used it. You pay for only what you use. No longer will you have to load up and pay for a season's fuel months in advance of its use. As a comparison in costs—

Generally speaking 1 ton of coal is equal to 14,000 cubic ft. of gas. If your coal costs you \$17.25 per ton delivered, you could afford to pay \$1.23 per 1,000 cubic ft. of gas.

If your stove oil costs you \$5.42 per bbl., you could afford to pay .95c per 1,000 cubic ft. of gas.

Gas will be delivered to you by your local distributor at rates very substantially below the above prices, thus greatly increasing savings to you over any other type of fuel.

4. Comfort:

In cold weather your heat can be automatically regulated to whatever temperature you wish. In

warm weather your kitchen is cooler because your gas stove is only on while you are actually cooking. No more hot stoves for hours on end to prepare a meal.

5. Equipment Costs:

Gas stoves for heating and cooking are cheaper than stoves requiring other types of fuel, and there are resulting lower equipment repair and maintenance costs for gas using equipment. The use of gas also eliminates labor and handling equipment required for any other fuel.

6. Lack of Fire Hazard:

Fire insurance rates for gas served communities are usually lower than for communities using any other type of fuel.

How You Can Use Natural Gas In Your Home:

Cooking; Hot Water Heating, all you want of it when you want it; **Furnaces** automatically controlled; **Refrigeration**, the newest and most economical of all refrigeration uses gas, there are no motors—it is absolutely noiseless and the cheapest to operate; **You can** easily and cheaply **convert your present furnace** to use natural gas.

STABLE GOVERNMENT AND INDUSTRIAL EXPANSION

The environment essential to healthy industrial expansion includes three prime necessities: adequate capital, satisfactory labor relations, and government policies designed to guarantee stability and security. The wave of capital now moving into Western Canada can rapidly assume flood proportions if those willing to take the risk can be reasonably assured of fair treatment and an opportunity to make a profit on their undertakings. The proof

of this is to be found in the amazing expansion of oil development in Alberta, where satisfactory conditions obtaining in that province have been an important contributory factor in investments aggregating as much as 100 million dollars in the past year. The willingness of investors to finance resources development is by no means limited to the oil industry nor to a single province. Given the same encouragement and the same assurance, an equally gratifying response can be expected in other directions. The great and rapidly expanding mining industry owes its existence and continuance to venture capital. Mining, like oil development, will continue to flourish and increase in scope and stature throughout western Canada so long as we provide political stability and reasonably favorable conditions for investment. The establishment of an aluminum industry in British Columbia, paralleling the great plants at Arvida in Quebec, awaits only an assurance from the people of the western province that the company's operations will be reasonably free from political interference and that the large capital investment required will have the security to which it is entitled. New mines, steel plants, oil fields, pipe lines, aluminum plants, pulp and paper plants—a multitude of new developments are in immediate prospect, asking only the maintenance of this favorable environment.

The whole country stands to gain from these industries but **the chief beneficiaries will be quite naturally the people living in the West.** Large scale industrial expansion such as is now envisaged holds promise of good times ahead. **New towns, new payrolls, and the secondary benefits which flow from such projects, offer an attractive guarantee against business recessions and hard times.** A greater measure of social security is available to industrial employees through the medium of expanding industry than can ever be hoped for through political pressure.

Our governments, federal and provincial, are becoming increasingly aware that we must have these new industries

if we are to continue even our present services and if we are to maintain anything like the high standard of living to which we have become accustomed. The potential wealth of Canada can be measured in terms of the natural resources available for our use. **Undeveloped resources are frozen assets, contributing nothing to the needs of the present. Our minerals and metals, our water power, our oil and gas lands, our forests must be harnessed for production before we can reap the benefits they hold in store.** It is the responsibility of these governments to ensure that every encouragement is given to people willing to invest in our primary and secondary industries. **We have everything to gain from this application of common sense.**

This booklet published by
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